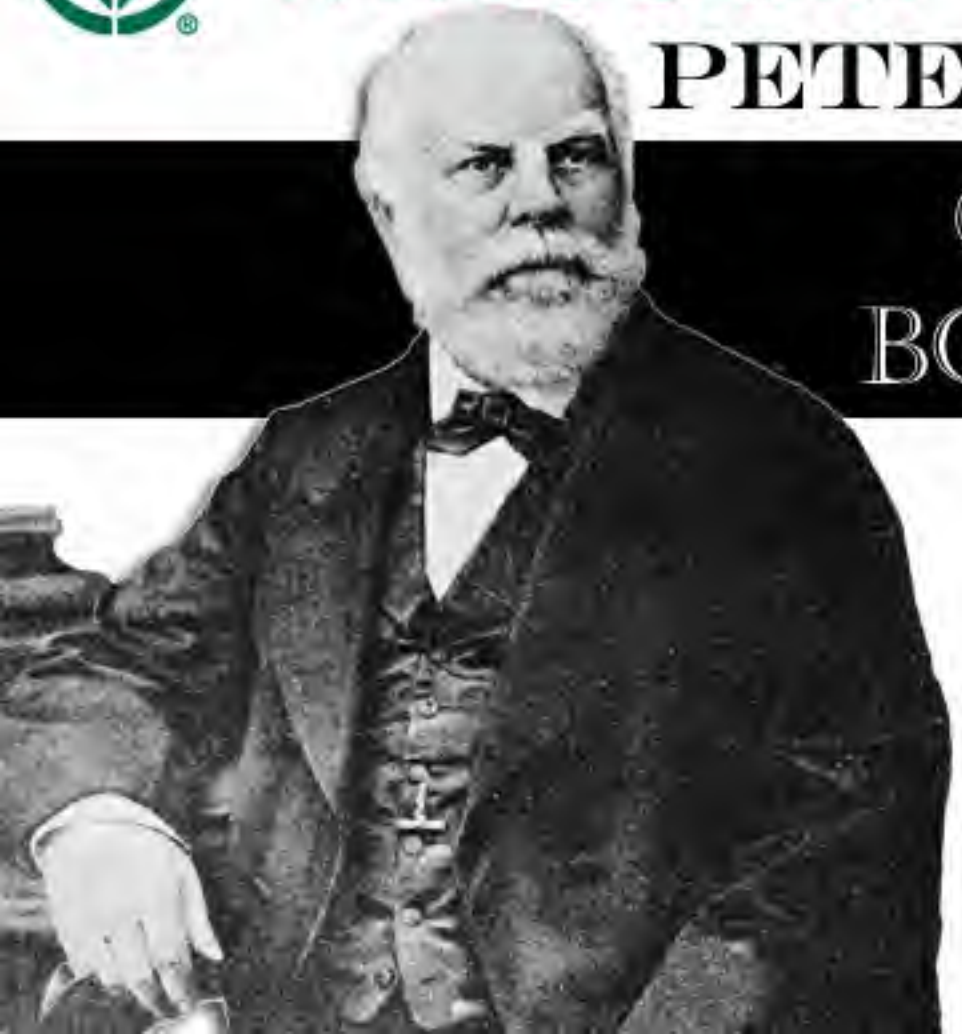
Missouri Botanical Garden
Peter H. Raven Library

George Engelmann Botanical Notebooks



Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

Pinus Strobus

New Hampshire

June 1865

Sheath & Leaves

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

10978

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 cm 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Pinus Strobus
H.D. Mis.

June 12 1862

X2

vagina of bundle of leaves

top of young branches

MISSOURI BOTANICAL GARDEN
copyright reserved
cm 0 1 2 3 4 5 6 7 8 9 10

10979

ARTHUR LEITCH,

APOTHECARY AND CHEMIST,

Sixth and Market streets, St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

×415

0.036

0.035

0.039

0.033

×4

Pinus Strobus
New Hampshire, J. Blake Jun 22[2]

June 1863

×10

mile raceme ovate or ovate-cylindric
3/4 – 1 1/2 inches long

mostly 6

mostly 7
sterile

not out
bright to the base?

over

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

10980

ARTHUR LEITCH,

APOTHECARY AND CHEMIST,

Sixth and Market streets, St. Louis, Mo.

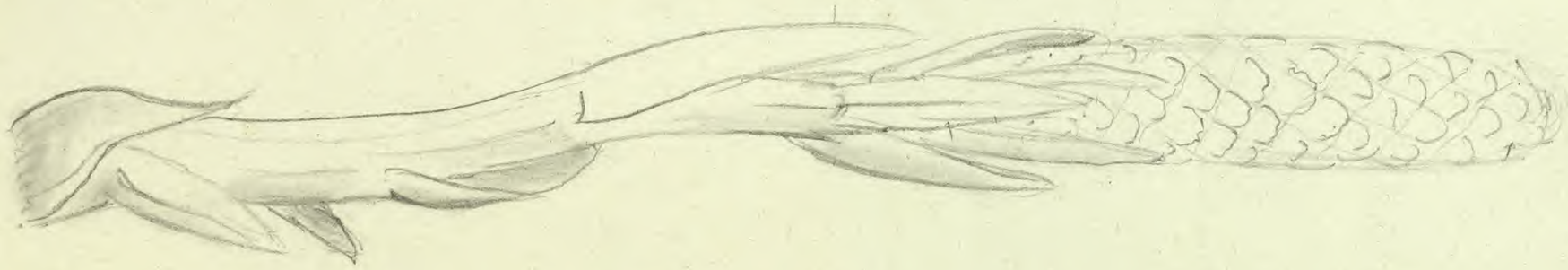
Part of make account sent this
the 6 months Gentz are
longer in my office.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Pinus Strobus fem. amenta, New Hampshire, J. Blake June 1863
June 22nd 1863

4X



×10

×30

scale about as long as bract.
bract reverse, dentinlati, [illegible]

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

10981

ARTHUR LEITCH,

APOTHECARY AND CHEMIST,

Sixth and Market streets, St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Pinus Strobus

Nov 11 1863

Coll Frankfort 1825

0.034 — 0.040

Size of Pollen × 415

Involucre & leaves of male amt

upper most anthers of ament usually with longer crista or spur

GOLLEGTED BY
GEO. ENGELMANN
ST. LOUIS, MO.

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

10982

ALEX. LEITCH.

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

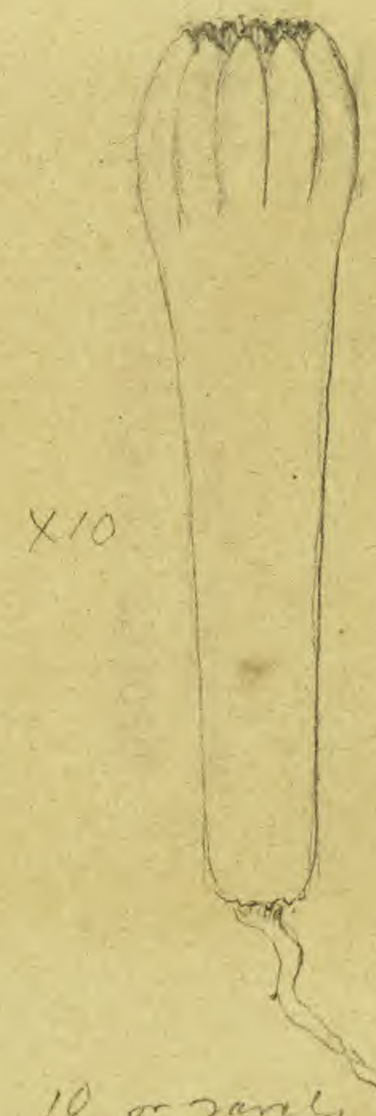
0 cm 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Pinus Strobus

Aug 29 1863

Mrs Lindley's Garden Sherman

just ripe & falling out



10 or rarely
11 Cotyl

underside
towards the end

Continuation of Wing
Covering outside (upper side)
of seed, and adhering to the
wing breaking off, (much like
that of Larix, or Tsuga)
leaving a margin on
seed, more or less distinct

Dry

In abortive seeds I find that
the wing process can be separated
entire from the seed, like Picea
I see the same in a sp. of Pinus
leiophylla

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

10983

ALEX. LEITCH,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Pinus Strobus

April 15 1871

Host Bot. Missouri April 12

×30

×30

×60

×20

×150

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

10984

HOELKE BROS.,

[Successors to SAMUEL D. HENDEL,]

Apothecaries & Chemists,

S. W. Corner of 6th and Market Streets,

ST. LOUIS, MO.

℞

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

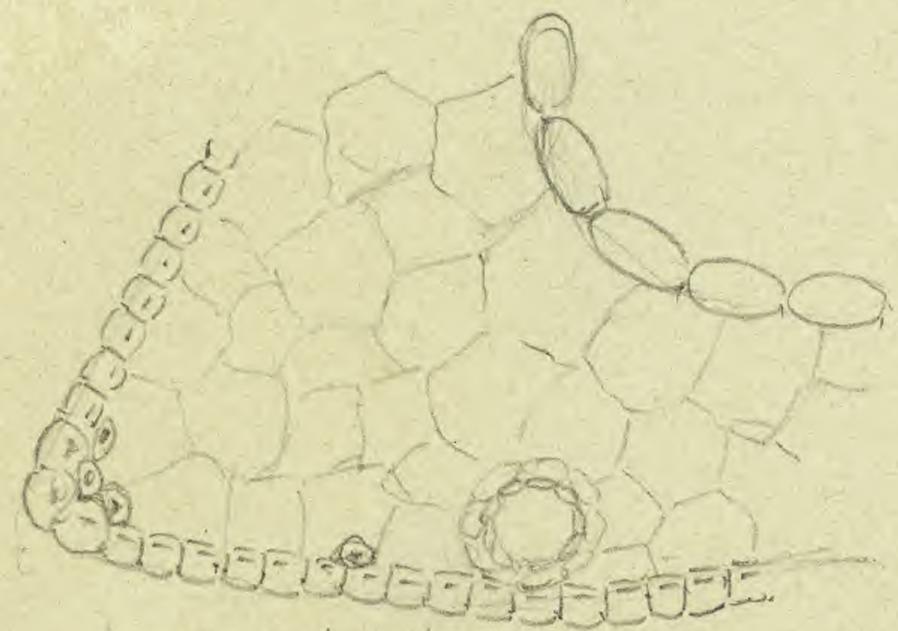
Pinus Strobus

July 25 1878

HB. Missouri, May 1878 Engelmann

×30

×150



very few hypoderm cells, or none

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

10985

GEO. B. FRESE & CO'S,

No. 3005 Olive Street,

Near Garrison Av. ST. LOUIS.

Prescription Store,

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Prescribed by

DR. GEO. ENGELMANN,

N. W. Cor. Garrison Ave. & Locust St.,

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

June 25 1878

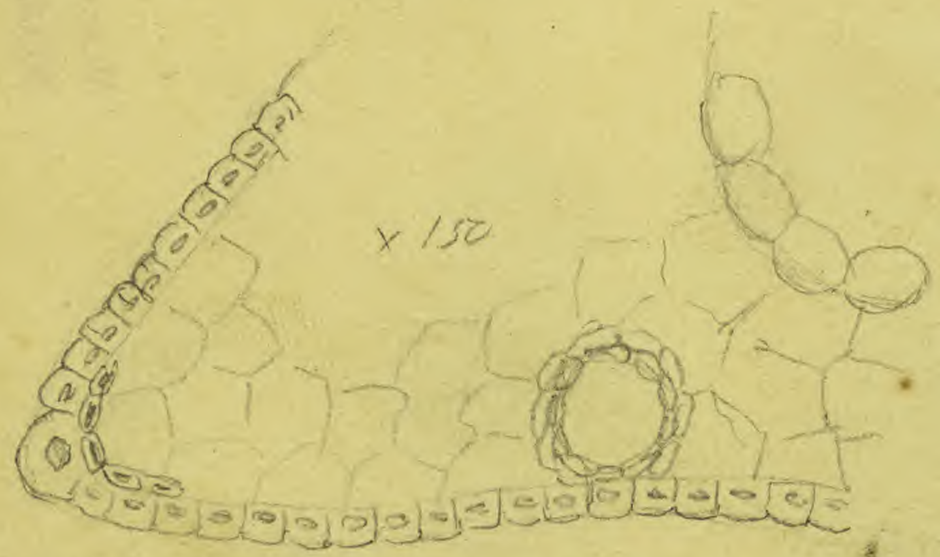
P. Strobus

H63. Hessian fork

× 30

× 30

× 60



× 150

no hypodermis or very thin and scant in angles

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

10986

ARTHUR T. HOLLISTER,

Druggist,

301 South Fifth, S. W. Cor. 5th & Myrtle, St. Louis, Mo.

℞

Ann Sel

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

tab 6

6

P. parviflora

45-50

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

10987

MISSOURI BOTANICAL GARDEN
GEORGE. ENGELMANN PAPERS

May 5 1878

Leaves $\frac{27}{30}$ = 0.9 mm thick

Pinus parviflora Sieb & Zucc.

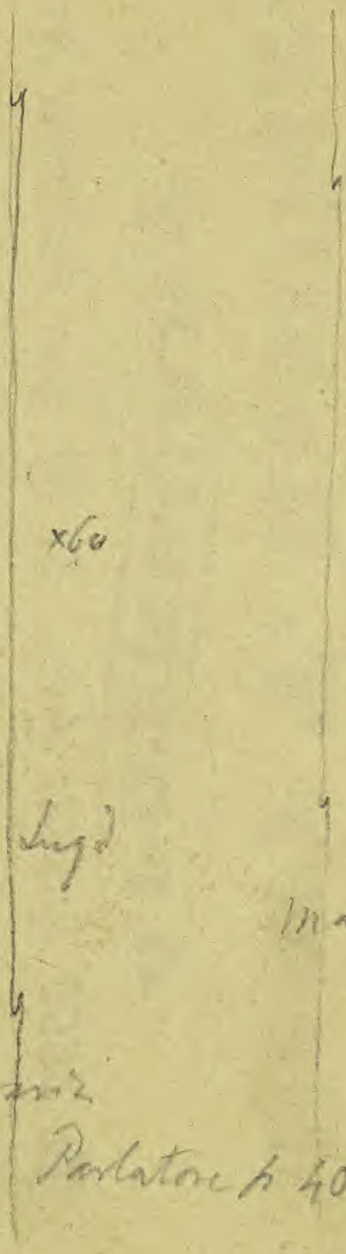
Zertur Japan ex Hb. Lugdun

x30

a true Strobus
with obtuse
denticulate point
ducts close to Epidermis
but "semina
aptera"
Zucc
(incorrect)

no hypoderm cells, or very
few in the corners.

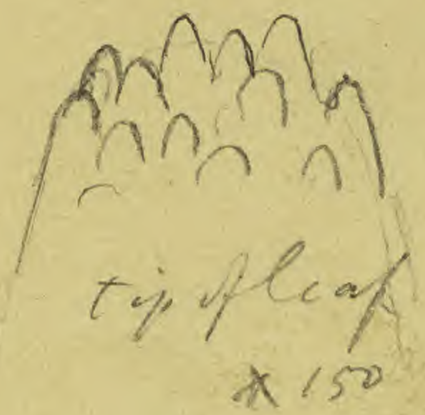
x30



x60

Hb Lugd

Maxim



tip of leaf

x150

Cotyles 8–10 (Zuccarini
see also Pavlatore t 404

maximo cuique leg
very few hypoderm cells
scattered on edges – exactly the same as the other

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

10988

Henry T. Rohlfing,

APOTHECARY,

No. 2600 Laclede Ave., S. W. Cor. Jefferson Ave.,

ST. LOUIS, MO.

No. ..... *Date,* *187*

℞

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

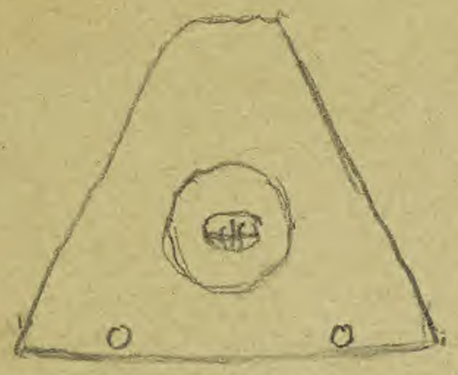
Geo. Engelmann, M. D.,
No. 3003 Locust Street.

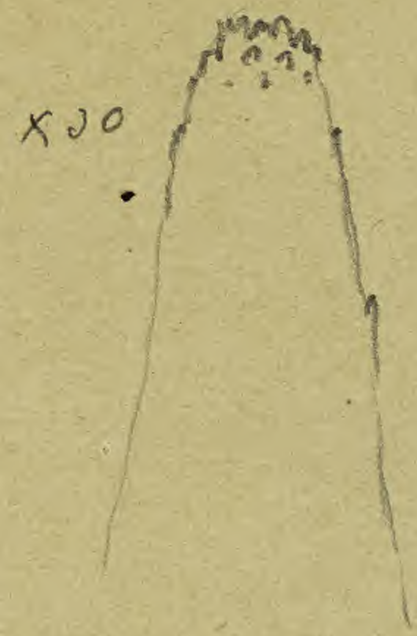
0 cm 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

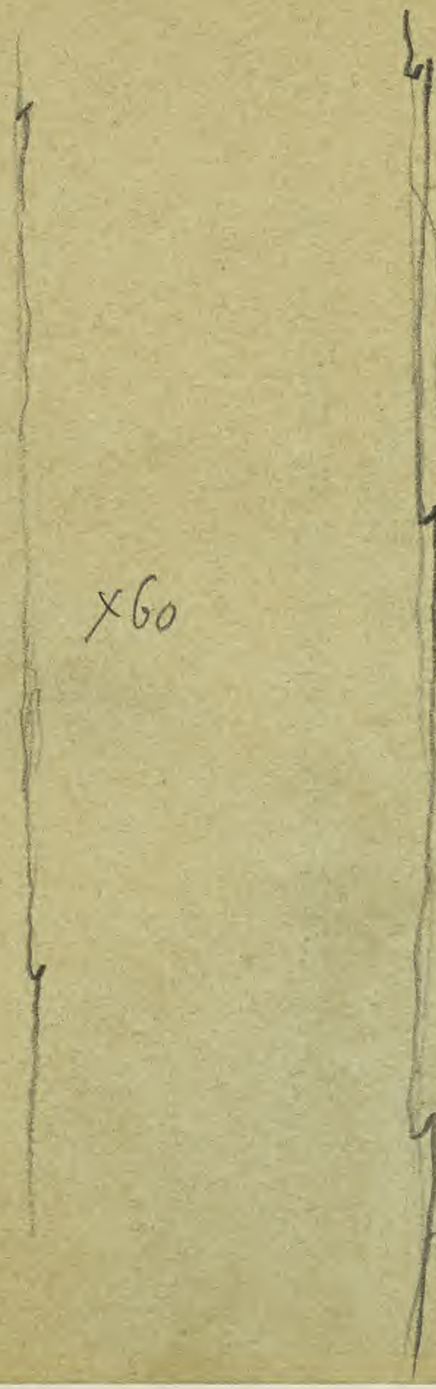
A. pumiflora

Yokohama, Mexico

May 24 1878







Japan Oshima

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

10989

Cor. 5th and Walnut St

MASTBROOK'S PHARMACY

No. 1006 Olive Street.

PURE WINES AND LIQUORS FOR MEDICAL USE.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

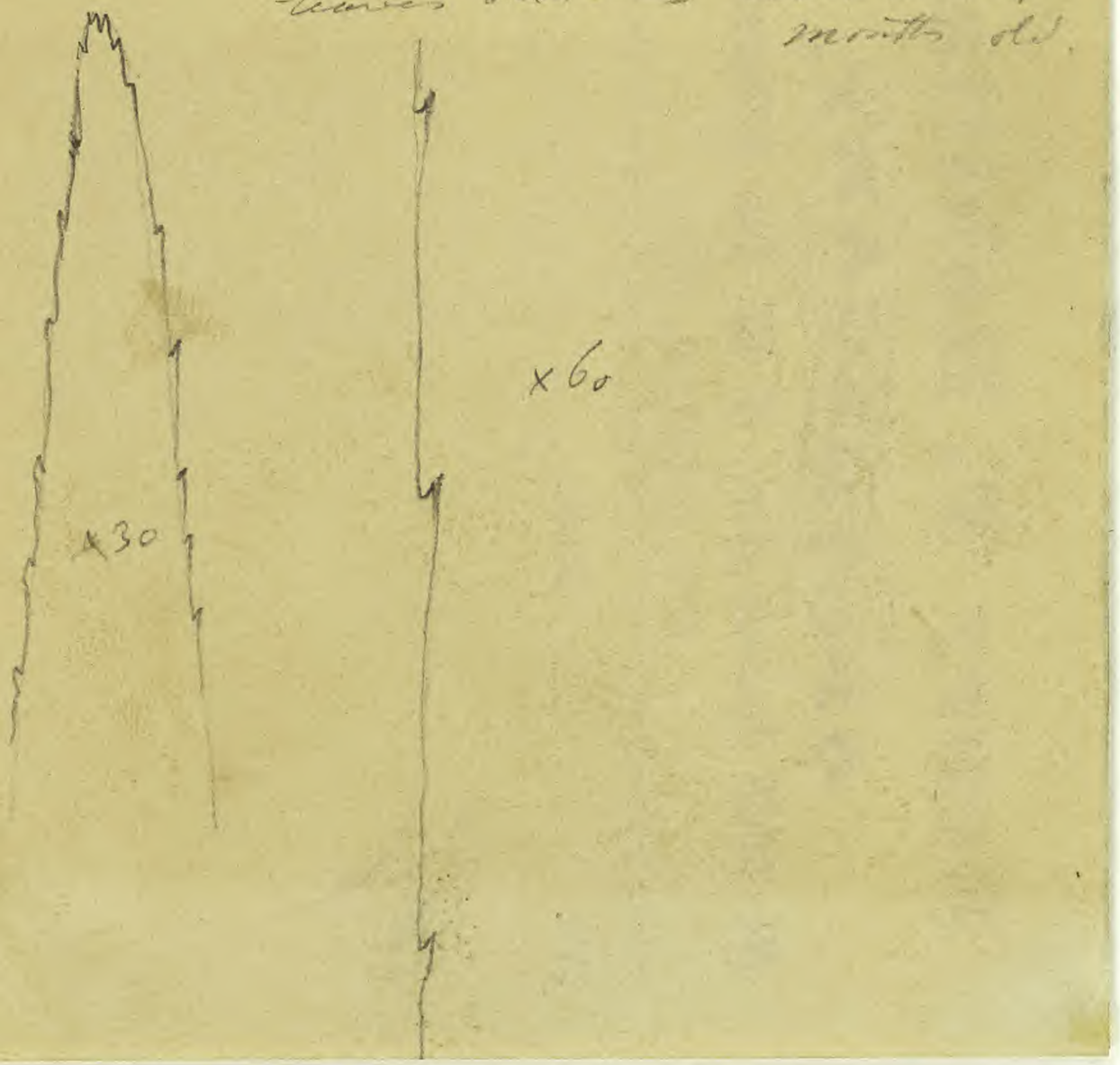
0 cm 1 2 3 4 5 6 7 8 9 10
MISSOURI BOTANICAL GARDEN
copyright reserved

June 21 1888

Pinus parviflora

Host Bot Mission cult

leaves 2 needles when 12–18 months old.



hypoderm cells very small. Thin walled, and few

Ducts often obliterated

(1–) 2 series of stomata on each side above

none on back

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

10990

Henry T. Rohlfing,

APOTHECARY,

No. 2600 Laclede Ave., S. W. Cor. Jefferson Ave.,

ST. LOUIS, MO.

No. ..... *Date,* *187*

℞

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Geo. Engelmann, M. D.,
No. 3003 Locust Street.

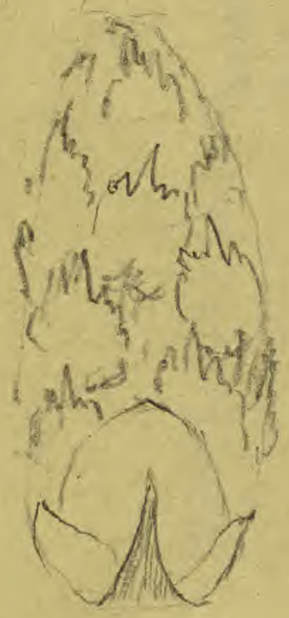
cm 0 1 2 3 4 5 6 7 8 9 10
Copyright reserved
MISSOURI BOTANICAL GARDEN

P. sum pumiflorum

Toronto Garden, Brooklyn Mass (Fruit)

June 22 1880

x4



fruit shorter than involucre, very small dark, not at all triaged

4 scales of involucre

Pollen

$\frac{32-33}{415} = 0.077 - 0.079$ mm

$\frac{15.5}{415} = 0.037$ lines

Male plant 4–5 lines long

4 involucral bracts almost circular external half as large as inner ones

+4

Outer involucle reflexed and very loose-flowered

10991

Henry T. Rohlfing,

APOTHECARY,

No. 2600 Laclede Ave., S. W. Cor. Jefferson Ave.,

ST. LOUIS, MO.

No. ..... *Date,* *187*

℞

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

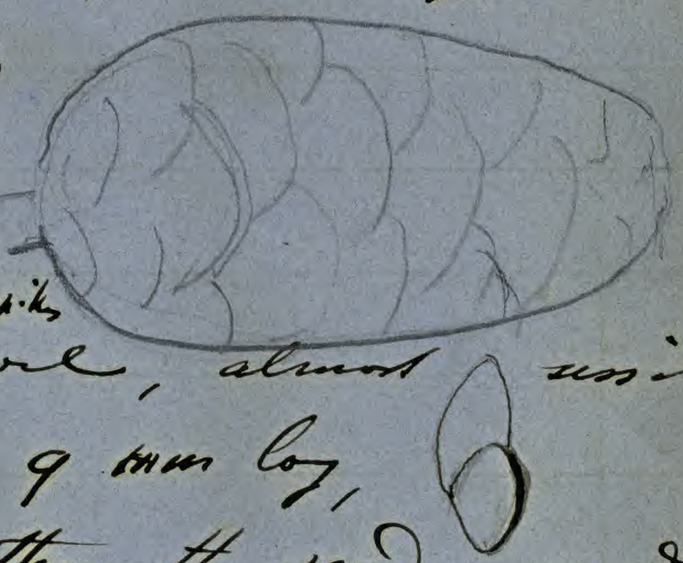
Geo. Engelmann, M. D.,
No. 3003 Locust Street.

0 cm 1 2 3 4 5 6 7 8 9 10
Copyright reserved
MISSOURI BOTANICAL GARDEN

Herb Kew Sept 6 1869

P. parviflora S.-J. 518 Nagasaki 4/62. Garden only R. Oldham

another batch of specimens with shorter and
longer leaves was sent by Maximowicz. J.
Yokohama, 1862 — with effete male fl ÷ long slender spikes
and with cones. Cones elongated ovoid, almost ⅄ sessile
5 cms long. Spiral — seeds large, 9 mms long,
with a wing 7 mm long, a little shorter than the seed — and
breaking off — as in Strobus — this as well as the obtuse at the apex
dentate leaves make it certainly a Strobus ÷ Haughs habit of a Cembra bundlets, pubescent.
A peculiar species, sold ÷ Japan by Textor and sent by the Herb
Lugd. Batav. has more slender, less crowded leaves, and an
elongated male spike 4–5 cms long, ament 1 cm long —
spike mixed with leaves! young bundlet of this year pubescent



0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

10992

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Din heteroptylla Brot in Herb June 25 1878

Leaves $\frac{18}{30}$ = 0.6 mm thick Nutka in Cands, Haenke ± 1/6 Prag.

×30

1 or 2 ducts
very little hypoderm ÷
Corners

Serrulate near Top
not lower down

seems to be
Parenchy
very little hypod
few teeth

few teeth or none

×60

near top of leaf

DUPLICATE HORTEBR

10993

ARTHUR T. HOLLISTER,
Druggist,

301 South Fifth, S. W. Cor. 5th & Myrtle, St. Louis, Mo.

℞

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Pin nivea

coll Rose 1869

June 26 1878

said to be for the N West
but is probably Strobus
though more hypodermal
than usual

× 30

the only one dent × 2
or some — 3
hypoderm very thin; small
fasciles rolls —
probably = Strobus

× 60

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

10994

ARTHUR T. HOLLISTER,

Druggist,

301 South Fifth, S. W. Cor. 5th & Myrtle, St. Louis, Mo.

℞

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN